

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph heading beginning at page 1, before line 1, as follows:

DESCRIPTION BACKGROUND OF THE INVENTION

Please amend the paragraph beginning at page 7, line 34, as follows:

~~Another~~ A purpose of the invention is to satisfy these needs and to supply a laser cavity and a laser such as a microlaser that do not have the disadvantages, defects and limitations of laser cavities and lasers, and particularly microlasers according to prior art, and which solve the problems of prior art.

Please amend the paragraph beginning at page 8, line 6, as follows:

SUMMARY OF THE INVENTION

This purpose and other purposes are achieved according to the invention by a laser cavity with controlled polarization comprising a substrate made of a doped or undoped active laser material $Y_3Al_5O_{12}$ (YAG) on which a monocrystalline layer of saturable absorbent material made of doped YAG is deposited directly by liquid phase epitaxy or by a similar process, in which, the said active laser material has a [100] orientation, and the said monocrystalline layer of saturable absorbent material is deposited with the same [100] orientation.

Before the paragraph beginning on page 8, line 17, please insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects, features and advantages of the invention will be apparent from the following more detailed description taken in conjunction with the accompanying drawings in which like numerals pick like parts, and wherein:

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Fig. 1 is a perspective view of a microlaser or microlaser cavity embodying the present invention; and

Fig. 2 schematically illustrates the process for manufacturing a microlaser in accordance with the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Before the paragraph beginning on page 15, line 4, please insert the following:

EB
A microlaser or a microlaser cavity 10 is shown in Fig. 1 and comprises an active solid material 2, and a saturable absorbent material 4. These two materials are included between two mirrors 6 and 8 which close the laser cavity. Reference numerals 12 and 14 identify a pumping beam of the laser microcavity and an emitted beam, respectively.

Please amend the paragraph beginning at page 15, before line 27, as follows:

Therefore, this process also comprises the following steps[:]. Referring to Fig. 2:

- EB
- a substrate 2 made of a doped or undoped $Y_3Al_5O_{12}$ (YAG) laser material with a [100] orientation is supplied in the shape of a sheet with parallel faces polished on its two faces 3;
 - a monocrystalline layer of doped YAG saturable absorbent material is deposited on one of the faces 3 of the said $Y_3Al_5O_{12}$ (YAG) active laser material, by liquid phase epitaxy or by a similar process;
 - the saturable absorbent monocrystalline layer thus deposited is polished;
 - the entry 6 and exit 8 mirrors are deposited on the two polished faces of the cavity[:];
(preferably the entry mirror 6 is deposited in the active layer material); and
 - the substrate - monocrystalline layer - mirrors complex thus obtained is cut out.

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Please amend the paragraph beginning at page 19, line 18, as follows:

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~~Polishing is done using a mecanochemical~~ mechanochemical process so that the polished faces(s) is(are) free of all defects (inclusion, dislocation, stress, scratch, etc.) that would propagate through the thickness of the layer during epitaxy. This polishing quality is controlled by appropriate chemical etching. The process developed for substrates used in conventional epitaxy techniques.

Please amend the paragraph beginning at page 22, line 25, as follows:

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The saturable absorbent layer is polished particularly to adjust its absorption properties. This polishing is usually done by chemical etching, for example in phosphoric acid or by ~~mecanochemical~~ mechanochemical polishing.

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AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings are being submitted to conform to changes made in the specification and to address the drawing rejection under 37 CFR 1.83(a).

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